

Applicant: Joseph A. Kwak
Application No.: 10/084,043

REMARKS

Claims 1-6, 10 and 11 are currently pending in this application. The Examiner has rejected Claims 1-6, 10 and 11. The Applicant has amended claims 1 and 11 to more particularly and distinctly point out the subject matter the Applicant regards as the invention. All claim amendments are fully supported in the specification. No new matter has been added.

35 U.S.C. §103(a) – Claims 1, 2, 5, 6 and 10

The Examiner rejected claims 1, 2, 5, 6 and 10 under 35 U.S.C. §103(a) as being unpatentable over Schramm et al. (U.S. Ref. No. 6,208,663) in view of Malkamaki et al. (U.S. Ref. No. 6,735,180) Fong et al. (U.S. Ref. No. 6,760,860), and Yonge III et al. (U.S. Ref. No. 6,522,650).

The Applicant's invention as claimed in amended independent claim 1 recites:

A method for adjusting data modulation at a base station comprising:

receiving data from a higher layer ARQ mechanism at a transmitter for transmission;

formatting the received data into packets for transmission, the packets being smaller in size than the data blocks, and each packet having a particular type of encoding/data modulation;

appending an error check sequence for each packet;

providing a physical layer ARQ mechanism performing steps including:

transmitting the packets;

storing the packets for retransmission in a buffer memory incorporated into the transmitter;

monitoring a return channel for receipt of an acknowledgment for each packet that the packet has been received;

limiting the number of retransmissions to an operator-defined integer value;

clearing the buffer memory after the integer value is reached;
and

retransmitting an original or selectively modified packet at the transmitter, if an acknowledgment for that packet has not been received; wherein the physical layer ARQ mechanism operates transparently with respect to the higher layer ARQ mechanism wherein the retransmitted original or selectively modified packets are combined with originally transmitted packets.

Among other deficiencies in the Schramm, Malkamaki, Fong, and Yonge references, there is no teaching, suggestion, or motivation in the Schramm, Fong, Malkamaki, or Yonge references of the packets being smaller in size than the data blocks, appending error check sequences of each packet, and retransmitting an original or selectively modified packet wherein the retransmitted original or selectively modified packets are combined with originally transmitted packets.

Accordingly, the Applicant's claimed invention as recited in amended independent claim 1 is patentable over the Schramm, Malkamaki, Fong and Yonge references, whether taken alone or in any combination with one another.

The Applicant's claims 2, 5, 6, and 10 depend either directly or indirectly from Applicant's patentable independent claim 1, and are therefore patentable for at least the same reason as Applicant's patentable amended independent claim 1.

In addition, the Applicant's dependent claim 10 recites a method "wherein the physical layer ARQ mechanism reduces retransmissions required by the higher layer ARQ mechanism" which is not taught nor suggested in the Schramm, Malkamaki, Fong or Yonge references, whether taken alone or in any combination with one another. Therefore, the Applicant's dependent claim 10 is patentable for this reason as well as its dependence from Applicant's patentable amended independent claim 1.

35 U.S.C. §103(a) – Claims 3 and 11

The Examiner rejected claims 3 and 11 under 35 U.S.C. §103(a) as being unpatentable over Schramm in view of Malkamaki, Fong, and Yonge as applied to claim 1, and further in view of Agee (U.S. Ref. No. 6,128,276).

As stated previously, neither the Schramm, nor the Malkamaki, nor the Fong, nor the Yonge references teach or suggest the packets being smaller in size than the data blocks, appending error check sequences of each packet, and retransmitting an original or selectively modified packet wherein the retransmitted original or selectively modified packets are combined with originally transmitted packets as is recited in Applicant's patentable amended independent claims 1 and 11. Moreover, the Agee reference fails to cure these deficiencies in the Schramm, Malkamaki, Fong, and Yonge references.

Since claim 3 indirectly depends from Applicant's patentable amended independent claim 1, it is patentable for at least the same reason as Applicant's patentable amended independent claim 1.

Additionally, the Applicant's amended independent claim 11 is patentable over the Schramm, Malkamaki, Fong, Yonge and Agee references, whether taken alone or in any combination with one another.

35 U.S.C. §103(a) – Claim 4

The Examiner rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over Schramm in view of Malkamaki, Fong, and Yonge as applied to claim 1, and further in view of Birru (U.S. Pub. No. 2002/0037058).

As stated previously, neither the Schramm, nor the Malkamaki, nor the Fong, nor the Yonge references teach or suggest the packets being smaller in size than the data blocks, appending error check sequences of each packet, and retransmitting an original or selectively modified packet wherein the retransmitted original or selectively modified packets are combined with originally transmitted packets as is recited in Applicant's patentable amended independent claim 1. Moreover, the Birru reference fails to cure these deficiencies in the Schramm, Malkamaki, Fong, and Yonge references.

Accordingly, since claim 4 depends from Applicant's patentable amended independent claim 1, it is patentable for at least the same reason as Applicant's patentable amended independent claim 1.

Applicant: Joseph A. Kwak
Application No.: 10/084,043

CONCLUSION

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the Applicant's undersigned attorney by telephone at the Examiner's convenience.

In view of the foregoing remarks and amendments, the Applicant respectfully submits that the present application, including claims 1-6 and 10-11, is in condition for allowance and a notice to that effect is respectfully solicited.

Respectfully submitted,

Joseph A. Kwak

By Thomas A. Mattioli
Thomas A. Mattioli
Registration No. 56,773
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

TAM/yil